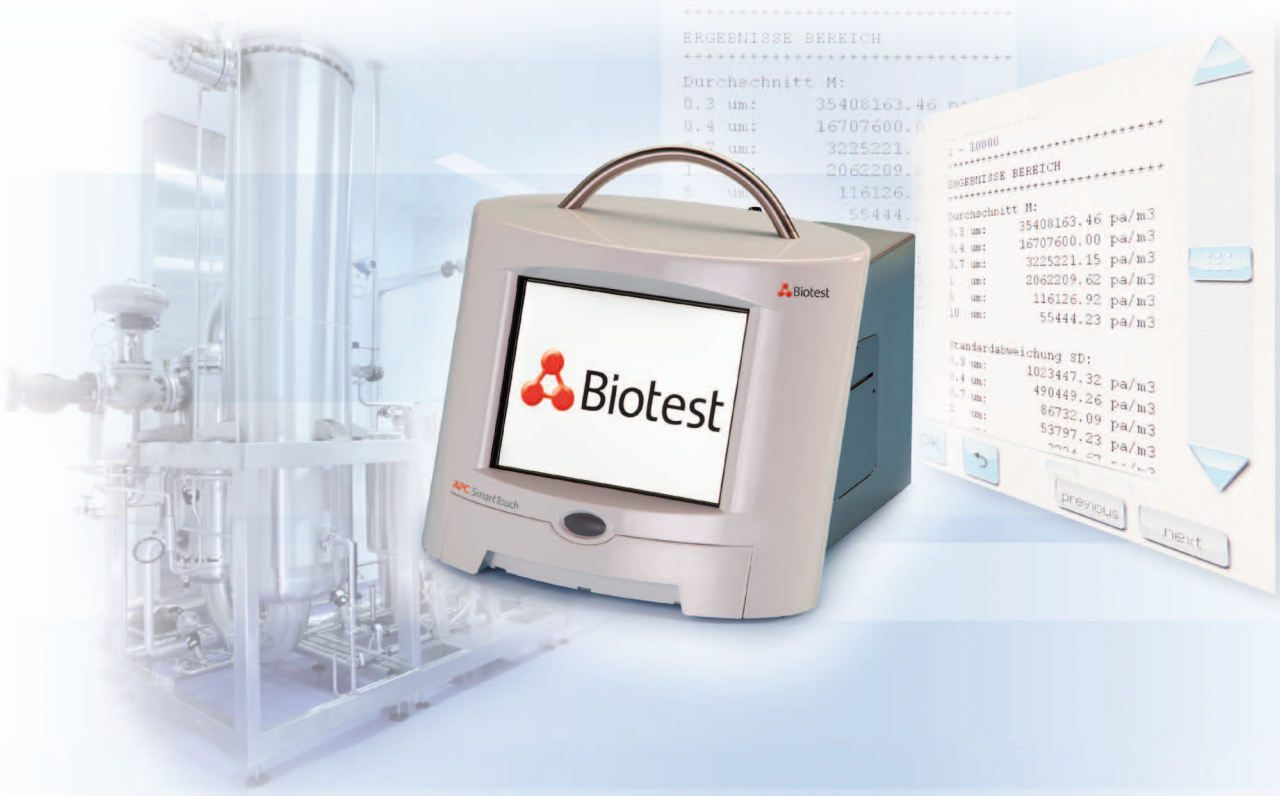
Biotest

From Nature for Life

APC SmartTouch

Smart system with an easy touch



- Significant cost savings – Dual flow rate in one instrument
- Fast and convenient operation – Intuitive software on a touchscreen
- Elimination of human error – Visual representation of sample locations
- Uninterrupted sampling – Flexibility through high-capacity batteries

Biotest APC SmartTouch Airborne Particle Counter

APC SmartTouch –
Smart system with an easy touch

Particle counting is a critical component of cleanroom monitoring programs. Detecting contaminants in air, surfaces or liquids, particle counter data is relied on to determine the cleanliness of air in controlled environments such as those found in the pharmaceutical, biotechnology, medical device and sensitive food industries.

APC SmartTouch instruments meet JIS B 9921: 1997 and ISO 21501 standards for performance, counting efficiency and calibration. These instruments are available in either stainless steel or plastic with stainless steel components. Both units are optimal for disinfection to fulfill the most stringent hygiene standards.

Various applications of the APC SmartTouch demonstrate the versatility of the instrument:

Applications for APC SmartTouch
Cleanroom monitoring
Cleanroom certification
Research
Exposure assessment
Indoor air quality
Filter testing
Clearance testing
Quality assurance
Contamination migration studies

Table 1: Applications of APC SmartTouch

Figure 1: Stainless steel housing of APC SmartTouch

A built-in Pulse-Height Analyzer (PHA) is ensuring that the APC SmartTouch particle counter is performing to its stated specifications as well as meeting the requirements of ISO and JIS. This assures data integrity and inspires confidence in operation and results.

Technical Specifications

Channel sizes	0.3, 0.5, 0.7, 1.0, 5.0, 10.0 µm; user-configurable in 0.1 µm increments from 0.3 – 10.0 µm
Flow rates	100 L/min & 1 CFM* (dual flow rate); 1 CFM, 50 L/min, 100 L/min
Sample output	Internally filtered to HEPA standards
Calibration	Particles are traceable to U.S. National Institute of Standards and Technology (NIST) and Japanese Industrial Standards (JIS), ISO 21501
Zero count	Meets JIS standards
Counting efficiency	50% at 0.3 µm; 100% for particles > 0.45 µm
Data storage	10,000 complete data sets, 21 CFR part 11 compliant
Data transfer	Internal printer, Ethernet, USB, Digital/Analog I/O
Data reports	ISO 14644-1, EC GMP annex 1, and FS209E for cleanroom certification
Display	8.4" VGA display, infrared touchscreen
Sample location	Visualization of sample locations with user-defined images
Printer	Built-in thermal printer
Housing material	Stainless steel or high impact injection moulded plastic (Makrolon®)
Dimensions (H x W x D)	Stainless steel: 21 x 23 x 30 cm
	Stainless steel / Makrolon®: 22 x 30 x 32 cm
Weight	7.2 kg without batteries / 8.5 kg with batteries (plastic enclosure); 9.1 kg with batteries (steel enclosure)
Operating range	0 – 40 °C, 10 – 90% humidity, non-condensing

Table 2: Technical specifications of APC SmartTouch

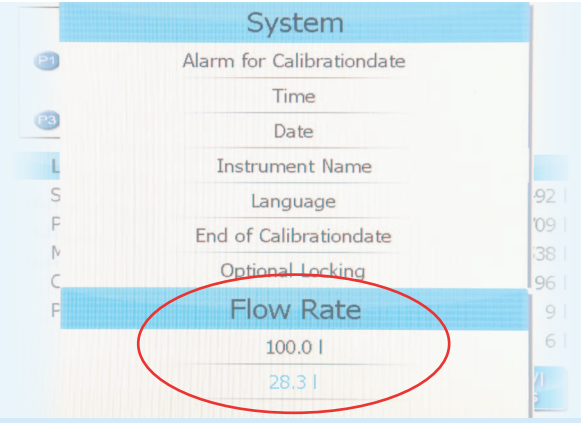
Significant cost savings – Dual flow rates in one instrument

The APC SmartTouch is the first instrument specifically designed for incorporating two flow rates. The same instrument can be used for both certification as well as routine monitoring of cleanroom and controlled environments.

Cleanroom certification involves checking the environment for various parameters such as High Efficiency Particulate Air (HEPA) Filter leak and air flow velocity to ensure that it is built and performs to a specific set of requirements. The ISO 14644-1 standard for filter testing recommends a one cubic foot per minute (1 CFM) particle counter.

Cleanroom monitoring, however, applies a much broader approach and is performed to ensure that performance parameters in the environment have not changed, the process in the room is in control at all times, and individuals using the cleanroom always follow SOP's. The ISO 14644-2 standard determines the type and frequency of testing and defines the use of a 100 liter per minute (100 L/min) instrument.

Incorporating both a 1 CFM and 100 L/min flow rate in a single machine, the APC SmartTouch satisfies the above needs while simultaneously eliminating the need for investment in multiple instruments and the associated routine costs from calibration events (see figure 2: Main screen display of dual flow rate).



System settings: Flow Rate

Figure 2: Mainscreen display of dual flow rate

Fast and convenient operation – Intuitive software on color touchscreen

The interactive large color touch screen user interface with easy-to-understand icons allows fast and convenient operation.
All required actions are started with a simple touch from the main screen, without complicated multi-level menu structures.
Direct access through clear structured icons simplifies the use of the APC SmartTouch without detailed instructions.
This increases operator efficiency saving significant time.

USB connection

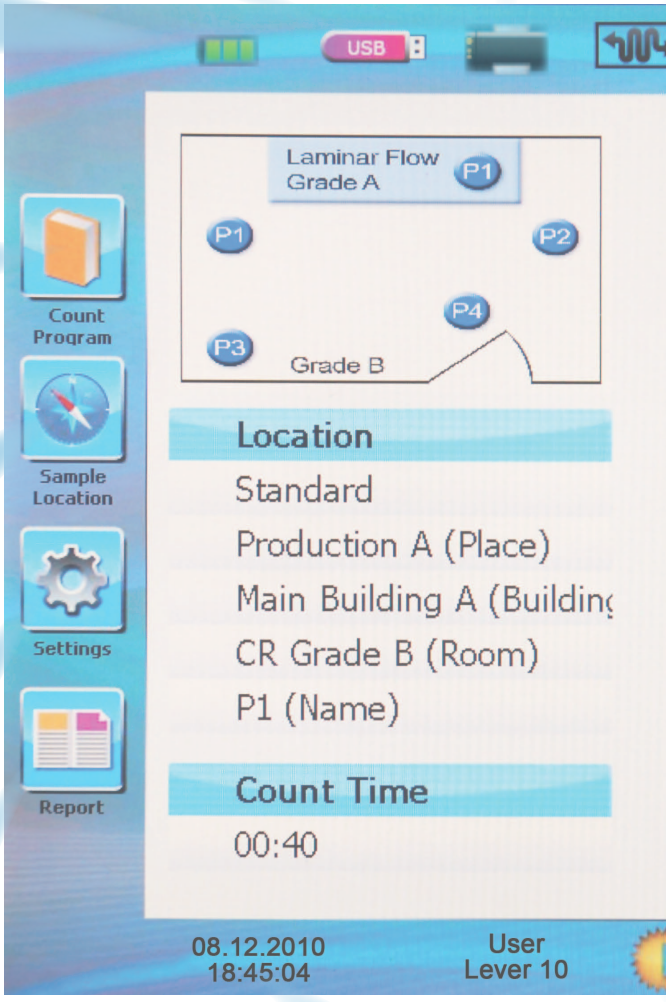
USB memory is connected
Easy data transfer to USB device is possible

Thermal printer connection

Thermal Printer is activated
Printing is possible

Battery status

Battery status is displayed
green: fully charged, red: recharging necessary



Count Program

Count program consists of count time, purge time, hold time, count mode, concentration counts, change between cumulative and differential count mode, channel setting, printer and reports can be defined

Location

An overview of the existing locations is displayed
Location is defined by sample location, sample parameters (recipes) and images to visualize the sample area using the APC SmartTouch Utility Software

Settings

Parameters like language, date/time formats can be defined

Report

Selection between ISO-14644-1, FS-209E and EC GMP Reports is possible

Time and date

08.12.2010
18:45:04

Actual time and date is displayed

On the main screen all functions of the instrument are displayed (battery status, printer and laser activity). Counting results are visible on the main screen during operation, and all programming functions, settings and reports can be accessed directly.

Flow rate indication

Current flow rate of instrument is displayed

Laser operation

Laser is running

Data storage indication

Memory capacity is indicated

Counting Time

Duration of sampling defined by sample volume or sampling time can be set

Purge Time

Duration of taking in air without counting can be set

Hold Time

Hold time between two samples can be set

Count Mode

Six different count modes can be selected

Brightness

Adjustment of main screen brightness is possible

Temperature and humidity

Temperature and humidity is displayed, when probe is connected

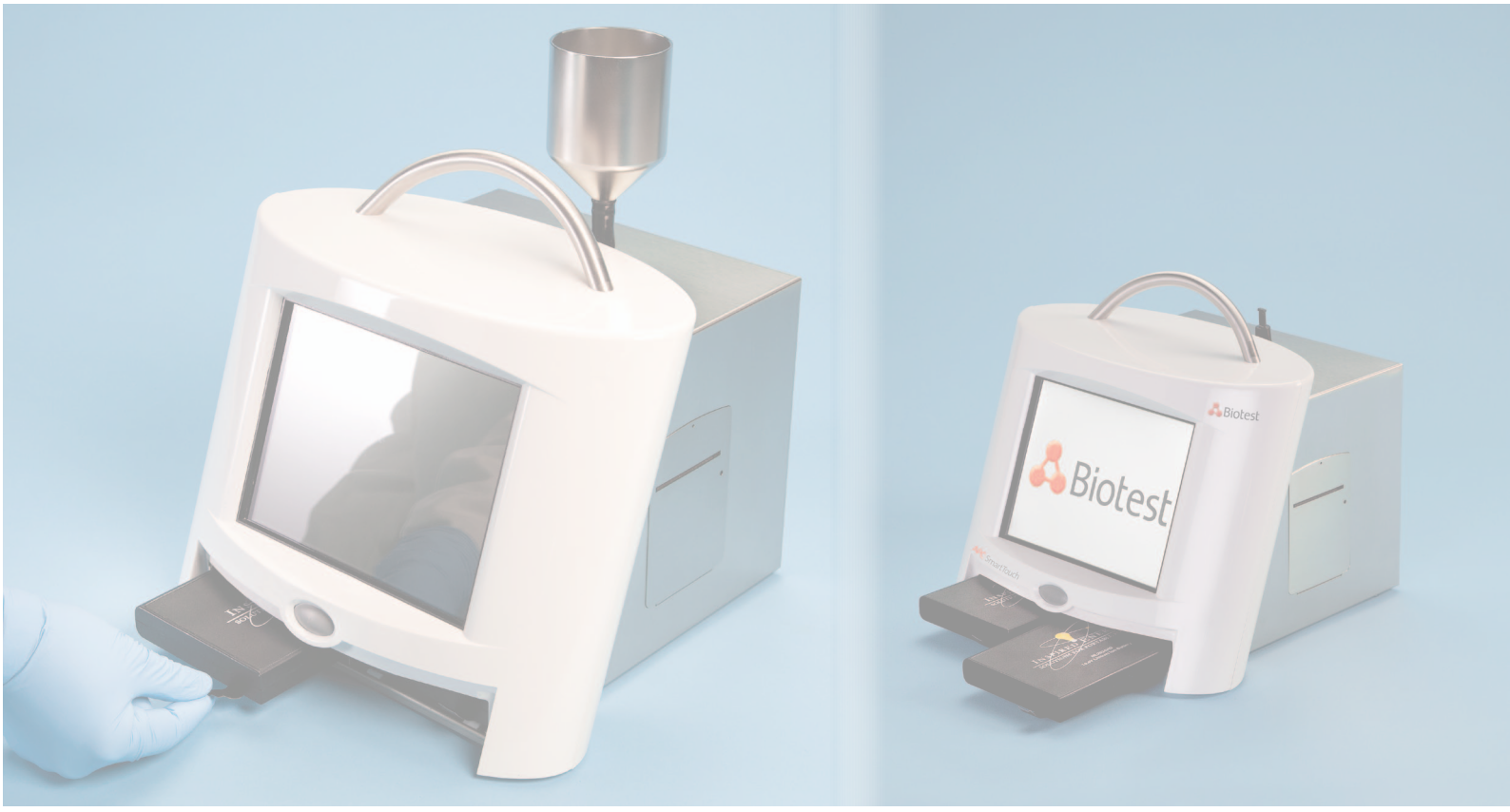
Elimination of human error – Visual representation of sample locations

Revolutionary features allow the user to import a graphic file as a jpeg for a visual representation of the sampling locations; including the designated sampling points. It dramatically eliminates the potential for sampling errors while confirming that the proper samples have been taken.

A sample location is defined by place, building, room and point. This can be uploaded to the instrument in a jpeg format. The APC SmartTouch Utility Software allows you to create defined parameter recipes (counting mode, count time, initial wait time, purge time and hold time) and stores designated sample location names. The features give the operator a time-saving advantage once the appropriate sample location is selected.

Start your
APC Smart Touch
with an easy touch
of your finger!

Uninterrupted sampling – Flexibility through high-capacity batteries



Two long-lasting Lithium-ion batteries allow continuous, flexible and uninterrupted operation, eliminating the need for down-time while recharging batteries. The batteries can easily be changed and recharged during operation without disruption or data loss (plastic enclosure only).

Recharging can be done by using the main power cord or by an External Battery Charger (Article No. 192 016). The status of the batteries is individually displayed on the main screen. Operation of the APC SmartTouch is also possible without batteries by using the main power cord only, providing maximum flexibility for a seamless operation.

Ordering Information

APC Smart Touch	Art. No.
Particle Counter, Isokinetic Probe (stainless steel), Hytrel Tubing, Zero Count Filter, two Batteries, Download Utility Software, User Manual, Quick Start Guide, AC Power Cord and two rolls of Printer Paper.	
Configurations	
APC SmartTouch, 1 CFM, Steel	942 800
APC SmartTouch, 50 LPM, Steel	942 801
APC SmartTouch, 100 LPM, Steel	942 802
APC SmartTouch, 1 CFM & 100 LPM, Steel	942 803
APC SmartTouch, 50 LPM, Plastic	942 820
APC SmartTouch, 100 LPM, Plastic	942 821
APC SmartTouch, 1 CFM & 100 LPM, Plastic	942 822
APC SmartTouch Accessories	
Lithium-ion Battery	942 830
Carrying Case (with wheels and handle), for plastic instruments	192 119
Carrying Case (with wheels and handle), for steel instruments	192 178
Thermal Printer paper (5 rolls)	192 074
Temperature / Relative Humidity Probe	942 833
Air Velocity Probe	942 834
Isokinetic Probe, 1 CFM	942 836
Isokinetic Probe, 50 LPM	942 438
Isokinetic Probe, 100 LPM	942 436
Filter Scanning Probe, 1 CFM	942 839
Sampling Tubing (per meter)	191 570
Purge Filter	942 841
APC Compressed Gas Adapter, select the right nozzle set below	942 675
Nozzle Set Compressed Gas Adapter, 1 CFM	942 842
Nozzle Set Compressed Gas Adapter, 50 LPM	942 660
Nozzle Set Compressed Gas Adapter, 100 LPM	942 650
Power Supply, including country-specific power cord	192 012
USB Connection Cable	191 551
Table-top Tripod for Isokinetic Probe	191 595
APC SmartTouch Download Utility Software	942 848
APC SmartTouch Qualification Handbook For performing complete IQ, OQ and PQ of APC SmartTouch particle counters, available in English	942 849
External Charger, including country-specific power cord	192 016
Network Cable, 1 meter	942 851

*CFM = cubic foot / minute; LPM = liter / minute

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